



SCHOTTKY BARRIER RECTIFIER

SR820 - SR8200

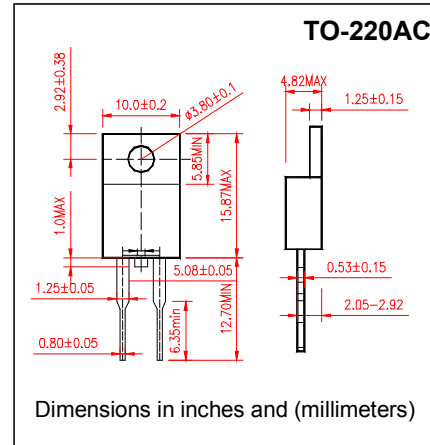
VOLTAGE RANGE - 20 to 200 V
CURRENT - 8 A

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage, high frequency inverters
- Free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: TO-220AC molded plastic
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Position: Any
- Weight: 0.08ounce, 2.24 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified Single Phase, half wave, 60Hz, resistive or inductive load For capacitive load derate current by 20%.

	SYMBOLS	SR 820	SR 830	SR 835	SR 840	SR 845	SR 850	SR 860	SR 880	SR 8100	SR 8150	SR 8200	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	25	28	32	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current At $T_C=100^\circ\text{C}$	$I_{(AV)}$	8.0											Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	150											Amps
Maximum Forward Voltage at 8.0A per element	V_F	0.65					0.75		0.85				Volts
Maximum DC Reverse Current at rated DC Blocking Voltage per element	I_R	$T_C = 25^\circ\text{C}$											μA
		$T_C = 100^\circ\text{C}$											
Typical Junction Capacitance (Note 2)	C_J	400											pF
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	2.0											$^\circ\text{C}/\text{W}$
Storage and Operating Temperature Range	$T_J T_{STG}$	(-55 to +150)											$^\circ\text{C}$

Notes:

- Thermal Resistance Junction to CASE
- Measured at $V_R = 4\text{V}$ and $f = 1\text{MHz}$



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RATING AND CHARACTERISTIC CURVES SR820 - SR8200

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

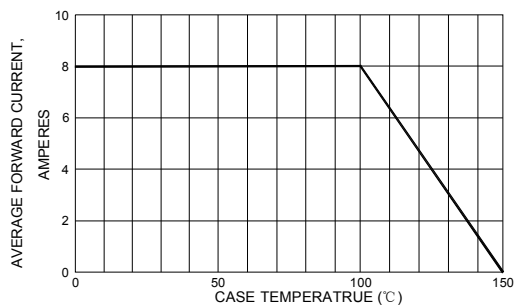


FIG.2-TYPICAL REVERSE CHARACTERISTICS

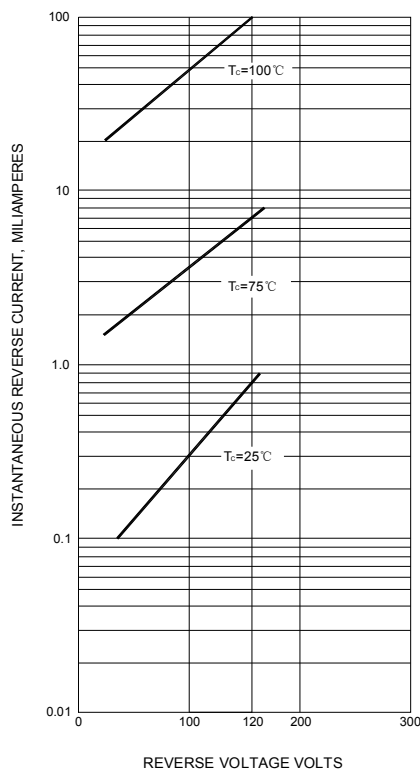


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

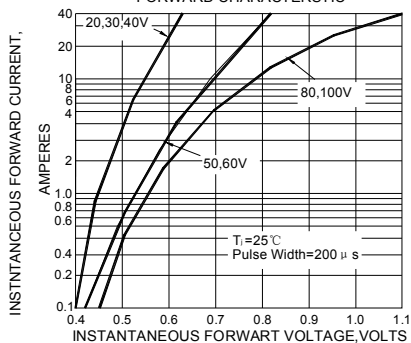


FIG.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

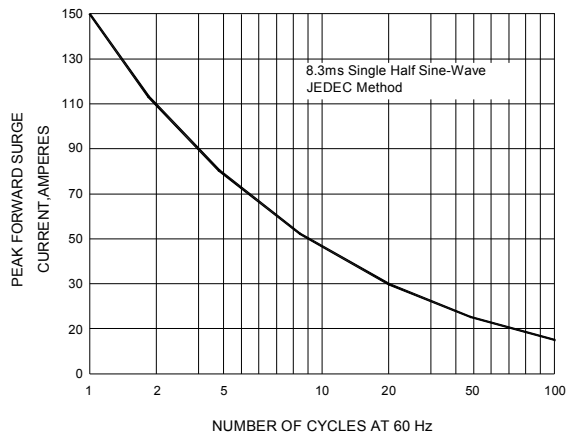


FIG.5-TYPICAL JUNCTION CAPACITANCE

